



Please type a plus sign inside this box → +

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

		Application Number	10/075,721
		Filing Date	February 14, 2002
		First Named Inventor	Berthet, et al.
		Group Art Unit	2631
		Examiner Name	Unassigned
Total Number of Pages in This Submission	5	Attorney Docket Number	Technology Center 2600 28944/38252

RECEIVED

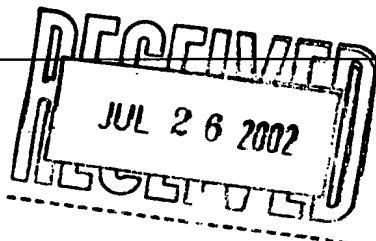
JUL 24 2002

Technology Center 2600

ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Amendment/Reply	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
<input type="checkbox"/> Extension of Time Request	<input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address	<input type="checkbox"/> Other Enclosure(s) (please identify below)
<input type="checkbox"/> Express Abandonment Request	<input type="checkbox"/> Terminal Disclaimer	
<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> Request for Refund	
<input type="checkbox"/> Certified Copy of Priority Document(s)	<input type="checkbox"/> CD, Number of CD(s) _____	
<input type="checkbox"/> Response to Missing Parts/ Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

Remarks



SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual Name	Marshall, Gerstein & Borun 6300 Sears Tower 233 South Wacker Drive Chicago, IL 60606-6357
Signature	Thomas A. Miller, Reg. No. 40,091
Date	July 18, 2002

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail, in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date shown below.

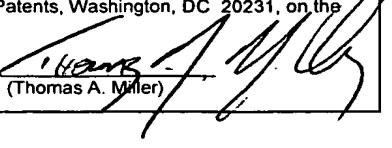
Dated: July 18, 2002

Signature: *Thomas A. Miller*

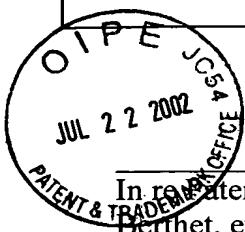
(Name of Signer) Thomas A. Miller

AS
rec
26317-2902

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail, in an envelope addressed to: Commissioner for Patents, Washington, DC 20231, on the date shown below.

Dated: July 18, 2002 Signature: 
(Thomas A. Miller)

Docket No.: 28944/38252
(PATENT)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Berthet, et al.

Application No.: 10/075,721

Group Art Unit: 2631

Filed: February 14, 2002

Examiner: Not Yet Assigned

For: Method and System of Iterative
Coding/Decoding of Digital Data Streams
Coded By Spatio-Temporal Combinations, In
Multiple Transmission and Reception

RECEIVED

JUL 24 2002

INFORMATION DISCLOSURE STATEMENT (IDS)

Technology Center 2600

Commissioner for Patents
Washington, DC 20231

Dear Sir:

Pursuant to 37 CFR 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned.

A copy of each reference on PTO/SB/08 is attached.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

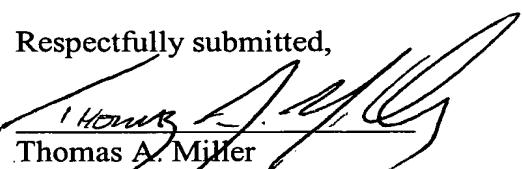
In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 28944/38349. A duplicate copy of this paper is enclosed.

Dated: July 18, 2002

Respectfully submitted,

By


Thomas A. Miller
Registration No.: 40,091
MARSHALL, GERSTEIN & BORUN
233 S. Wacker Drive, Suite 6300
Sears Tower
Chicago, Illinois 60606-6357
(312) 474-6300
Attorneys for Applicant



PTO/SB/08B (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U. S. Patent and Trademark Office: U. S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete if Known	
				Application Number	10/075,721
				Filing Date	February 14, 2002
				First Named Inventor	Berthet, et al.
				Group Art Unit	2631
				Examiner Name	not yet assigned
Sheet	1	of	2	Attorney Docket Number	28944/38252 Technology Center 2600

RECEIVED

JUL 24 2002

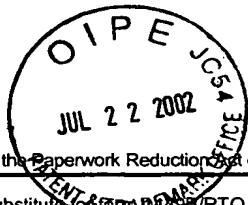
U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	6,128,330	10/03/2000	Schilling	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS		
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.
	B1 ✓	L.R.BAHL et al. "Optimal decoding of linear codes for minimizing symbol error rate", IEEE France. Inform. Theory, vol.IT-20, pp.284-287, March 1974.
	B2 ✓	TAKESHI HASHIMOTO. "A list-type reduced-constraint generalization of the Viterbi algorithm" – IEEE Transactions on Information Theory. Vol IT-33, No.6, Nov.1987
	B3 ✓	J.HAGENAUER, P.HOEHER, "A Viterbi algorithm with soft decision outputs and its applications", Proc. IEEE GLOBECOM'89, pp. 1680-1686, Dallas, USA, Nov.1989.
	B4 ✓	C.BERROU et al. "Near Shannon limit error correcting coding and decoding: Turbo-codes" – IEEE ICC'93, pp. 1064-1073, Geneva, Switzerland, May 1993.
	B5 ✓	C.DOUILLART et al. "Interactive correction of intersymbol interference: Turbo-equalization" – Europ. Trans. on Telecommunication, vol.6, pp.507-511, Sept.1995
	B6 ✓	S. BENEDETTO et al. "Serial Concatenation of interleaved Codes: Performances analysis, design and iterative decoding" – TDA Progress Report 42-126, Aug.1996
	B7 ✓	G.J. FOSCHINI. "Layered space-time architecture for wireless communication in a fading environment when using multi-element antennas".. Bell Labs Journal. Autumn 1996
	B8 ✓	ETSI.GSM Recommendations, 05.5 version 5.8.0 – Dec.1996.
	B9 ✓	V.TAROCK et al. "Space time codes for high data rate wireless communication: performance criterion and code construction", IEEE Trans. Inform. Theory vol.44, No.2, March 1998.
	B10 ✓	G.BAUCH, V.FRANZ. "A comparison of soft-in soft-out algorithm for turbo-detection" Proceedings of ITC, vol.2 pp.259-263, Portos-Carras, Greece, June 1998.
	B11 ✓	BAUCH G. "Concatenation of space-time block codes and turbo-TCM"-ICC'99- 1999 IEEE International Conference on Comm. Conference Record. Vancouver, CA, June 6-10,1999 - IEEE International Conference on Comm - New-York-Vol.2, June 6,1999 – pages 1202-1206, XP 000898047 - ISBN 0-7803-5285-8
	B12 ✓	BAUCH et al. "MAP equalization of space-time coded signals over frequency selective channels" – Proc. Wireless Comm. on Networking Conference (WCNC) Sept.1999

Examiner Signature		Date Considered
--------------------	--	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08B (10-01)

Approved for use through 10/31/2002 OMB 0651-0031

U. S. Patent and Trademark Office: U. S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for a Draft Search/PTO				<i>Complete if Known</i>	
				Application Number	10/075,721
				Filing Date	February 14, 2002
				First Named Inventor	Berthet, et al.
				Group Art Unit	2631
				Examiner Name	not yet assigned
Sheet	2	of	2	Attorney Docket Number	28944/38252
					RECEIVED
					JUL 24 2002

Technology Center 2600

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	B13 ✓	G.J.FOSCHINI et al. "Simplified processing for high spectral efficiency wireless communication employing multi-element arrays", IEEE JSAC, vol.17, No.11, pp.1841-1852, nov.1999.	
	B14 ✓	STEVANOV et al. "Turbo coded modulation for systems with transmit and receive antenna diversity"- GLOBECOM'1999 IEEE Global Telecommunications Conference. Seamless interconnection for universal services. Rio de Janeiro, Brazil, Dec.5-9,1999 IEEE Global Telecommunications Conference N.Y. – Vol. 5 (1999-12-05), pages 2336-2340, XP000958539, ISBN 0-7803-5797-3	
	B15 ✓	R.VISOZ et al. "Generalised Viterbi algorithm for trellis coded signals transmitted through broadband wireless channels"- Electronic Letters, pp.227-228, 3 Feb.2000, vol.36, No.3	
	B16 ✓	BAUCH G. et AL-DAHIR. "Iterative equalization and decoding with channel shortening filters for space-time coded modulation". Vehicular Technology Conference Fall 2000. IEEE VTS Falls VTC2000, vol.4, 24-28 Sept.2000, pages 1575-1582, XP002180247, Boston MA, USA	
	B17 ✓	LEUNG HANG CHING JASON. "Low complexity turbo space-time code for system with large number of antennas" Proc. of Global Telecomm. Conf. GLOBECOM'2000, vol.2, Nov.27, 2000-Dec.1,2000, pp.990-994, XP002180248, San Francisco CA, USA	
	B18 ✓	A.O. BERTHET et al. "A comparison of several strategies for iteratively decoding serially concatenated convolution codes in multipath Rayleigh fading environment", Proc. IEEE GLOBECOM'2000, San Francisco, USA, Nov.2000	
	B19 ✓	M.PUKKILA "Turbo-Equalisation for the enhanced GPRS system" – Proc.IEEE Conf. PIMRCOO London UK, 2000.	
	B20 ✓	French Search Report of Publication No. FR 0102343, report dated October 16, 2001.	

Examiner Signature	Date Considered
--------------------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.